In the Claims

1. (Currently Amended) A tomographic system comprising:

a rotatable gantry having a bore centrally disposed therein;

a table movable within the bore and configured to position a subject for tomographic data acquisition within the bore;

a high frequency electromagnetic energy projection source positioned within the rotatable gantry and configured to project high frequency electromagnetic energy toward the subject;

a detector array disposed within the rotatable gantry and configured to detect high frequency electromagnetic energy projected by the projection source and impinged by the subject; and

~~at least one sensor to provide subject position feedback.~~

a computer programmed to associate subject-position feedback with data derived from the detector array.

2. (Canceled)

3. (Currently Amended) The system of claim 1 ~~further comprising a~~wherein the ~~computer programmed to:~~

~~perform at~~ data derived from the detector array is from at least one scout scan~~; and~~

~~associate the subject position feedback with data derived from the scout scan~~.

4. (Original) The system of claim 3 wherein the computer is further programmed to determine at least one of a projection area (PA), a projection measure (PM), and an oval ratio (OR) from the subject-position feedback and the data derived from the scout scan.

5. (Original) The system of claim 3 wherein the computer is further programmed to determine an elevational offset of the subject from the table.

6. (Original) The system of claim 3 wherein the computer is further programmed to dynamically control attenuation characteristics of a pre-subject attenuation filter such that the attenuation characteristics match a desired attenuation profile.

7. (Previously Presented) The system of claim 6 wherein the desired attenuation profile is determined from the at least one scout scan.

8. (Currently Amended) The system of claim 1 further comprising at least one sensor to provide subject ~~wherein the~~ position feedback in a z-direction to determine patient contour ~~includes subject contour feedback~~, the at least one sensor having at least one of a laser sensor and a sonic sensor.

9. (Currently Amended) A computer readable storage medium having stored thereon a computer program representing a set of instructions which, when executed by at least one processor, cause the at least one processor to:

receive feedback regarding a subject position from ~~at least one sensor~~a detector array of an imaging device;

acquire image data from the detector array;

compare the feedback to the image data received from the detector array; and

determine a centering error from the ~~feedback~~comparison.

10. (Original) The computer readable storage medium of claim 9 wherein the imaging device includes a medical imaging device.

11. (Original) The computer readable storage medium of claim 9 wherein the at least one processor is further caused to determine an adjustment in a table elevation relative to isocenter to reduce the centering error.

12. (Original) The computer readable storage medium of claim 9 wherein the at least one processor is further caused to associate the feedback with data received from a scout scan.

13. (Currently Amended) The computer readable storage medium of claim 9 wherein the at least one processor is further caused to determine at least one of a PA, a PM, and an OR from ~~the~~a subject-contour feedback and ~~the~~ data derived from ~~the~~a scout scan.

14. (Original) The computer readable storage medium of claim 9 wherein the sensors include at least one of a laser sensor and a sonic sensor.

15. (Original) The computer readable storage medium of claim 9 wherein the at least on processor is further caused to determine a lateral repositioning value for subject recentering from the feedback.

16. (Original) The computer readable storage medium of claim 9 wherein the at least on processor is further caused to determine an attenuation profile of an attenuation filter.

17. (Original) The computer readable storage medium of claim 16 wherein the at least on processor is further caused to determine an attenuation pattern over a scan duration.

18. (Original) The computer readable storage medium of claim 9 wherein the at least on processor is further caused to determine a projection error ratio from the positioning information.

19. (Currently Amended) A method of imaging comprising the steps of:

positioning a subject in an imaging device having detector array for acquiring image data;

collecting positioning information of the subject from both at least one sensor disposed in proximity to the imaging device, and from the detector array; and

determining a relative position of the subject within the imaging device from at least the position information.

20. (Original) The method of claim 19 further comprising the step of determining a table elevation relative to isocenter.

21. (Original) The method of claim 20 further comprising the step of determining a centering error of the subject in at least one direction.

22. (Original) The method of claim 21 further comprising the step of repositioning the subject to reduce the centering error.

23. (Original) The method of claim 22 further comprising the step of adjusting table elevation to reduce the centering error.

24. (Original) The method of claim 19 wherein the at least one sensor is disposed in a bore of the imaging device.

25. (Original) The method of claim 19 further comprising the step of acquiring medical diagnostic data of the subject.

26. (Original) The method of claim 19 further comprising the step of detecting a top surface position of the subject from the positioning information.

27. (Original) The method of claim 26 further comprising the step of determining from the top surface position an elevational offset of the subject.

28. (Original) The method of claim 27 further comprising the step of performing a scout scan.

29. (Original) The method of claim 28 further comprising the step of determining the relative position from data acquired during the scout scan.

30. (Original) The method of claim 19 wherein the positioning information includes vector position information.

31. (Original) The method of claim 19 further comprising the step of adjusting an attenuation characteristic of an attenuation filter according to the determined position of the subject.

32. (Original) The method of claim 19 further comprising the step of determining at least one of a PA, a PM, and an OR from the position information.

33. (New) A tomographic system comprising:

a rotatable gantry having a bore centrally disposed therein;

a table movable within the bore and configured to position a subject for tomographic data acquisition within the bore;

a high frequency electromagnetic energy projection source positioned within the rotatable gantry and configured to project high frequency electromagnetic energy toward the subject;

a detector array disposed within the rotatable gantry and configured to detect high frequency electromagnetic energy projected by the projection source and impinged by the subject;

at least one sensor to provide subject-position feedback; and

a computer programmed to:

perform at least one scout scan; and

associate the subject-position feedback with data derived from the scout scan.

34. (New) The system of claim 33 wherein the computer is further programmed to determine at least one of a projection area (PA), a projection measure (PM), and an oval ratio (OR) from the subject-position feedback and the data derived from the scout scan.

35. (New) The system of claim 33 wherein the computer is further programmed to determine an elevational offset of the subject from the table.

36. (New) The system of claim 33 wherein the computer is further programmed to dynamically control attenuation characteristics of a pre-subject attenuation filter such that the attenuation characteristics match a desired attenuation profile.

37. (New) The system of claim 36 wherein the desired attenuation profile is determined from the at least one scout scan.

38. (New) A computer readable storage medium having stored thereon a computer program representing a set of instructions which, when executed by at least one processor, cause the at least one processor to:

receive feedback regarding a subject position from at least one sensor of an imaging device;

determine a centering error from the feedback; and

associate the feedback with data received from a scout scan.

39. (New) A computer readable storage medium having stored thereon a computer program representing a set of instructions which, when executed by at least one processor, cause the at least one processor to:

receive feedback regarding a subject position from at least one sensor of an imaging device;

determine a centering error from the feedback; and

determine at least one of a PA, a PM, and an OR from a subject-contour feedback and data derived from a scout scan.

40. (New) A method of imaging comprising the steps of:

positioning a subject in an imaging device;

collecting positioning information of the subject from at least one sensor disposed in proximity to the imaging device;

determining a relative position of the subject within the imaging device from at least the position information; and

adjusting an attenuation characteristic of an attenuation filter according to the determined position of the subject.